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19304DT GSRS, MISSILE NUMBER 1031, ROUND NUMBER V-46, 28 JUNE 1--ETC(U)
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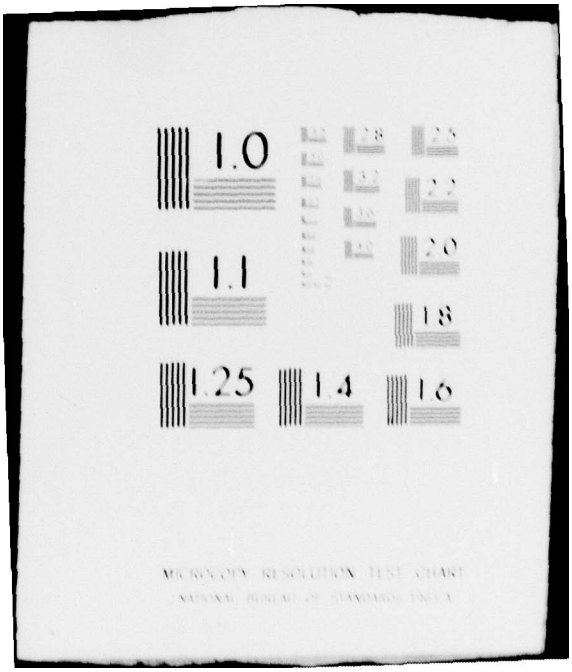
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METEOROLOGICAL DATA REPORT

19304DT GSRS
Missile No. 1031
Round No. V-46
28 June 1979

by

White Sands Meteorological Team

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM
UNITED STATES ARMY ELECTRONICS COMMAND

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER: DR 1037
2. GOVT ACCESSION NO.
3. RECIPIENT'S CATALOG NUMBER

4. TITLE (and Subtitle): 19304DT GSRS Missile Number 1031 Round Number V-46. 28 June 1979.
5. TYPE OF REPORT & PERIOD COVERED
6. PERFORMING ORG. REPORT NUMBER

7. AUTHOR(s): White Sands Meteorological Team
8. CONTRACT OR GRANT NUMBER(s): DA Task 1T665702D126

9. PERFORMING ORGANIZATION NAME AND ADDRESS: 12 20 p.
10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS: 17 02

11. CONTROLLING OFFICE NAME AND ADDRESS: US Army Electronics Research & Development Comd. Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico
12. REPORT DATE: 11 JUNE 1979
13. NUMBER OF PAGES

14. MONITORING AGENCY NAME & ADDRESS (If different from Controlling Office): US Army Electronics Research & Development
15. SECURITY CLASS. (of this report): UNCLASSIFIED
15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

9 Meteorological data rept.

18. SUPPLEMENTARY NOTES

14 ERADCOM/ASL-DR-1037

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

1. Ballistics
2. Meteorology
3. Wind

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Meteorological data gathered for the launching of 19304Dt GSRS, Missile Number 1031, Round Number V-46, are presented in tabular form.

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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CONTENTS

INTRODUCTION

19304DT GSRS , Missile Number 1031 , Round Number V-46 , was launched from LC-33 , White Sands Missile Range (WSMR), New Mexico, at 0713 MDT, 28 June 1979 . The scheduled launch time was 0700 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature (°C), relative humidity, dew point (°C), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RADTS T-9 pibal observation at:

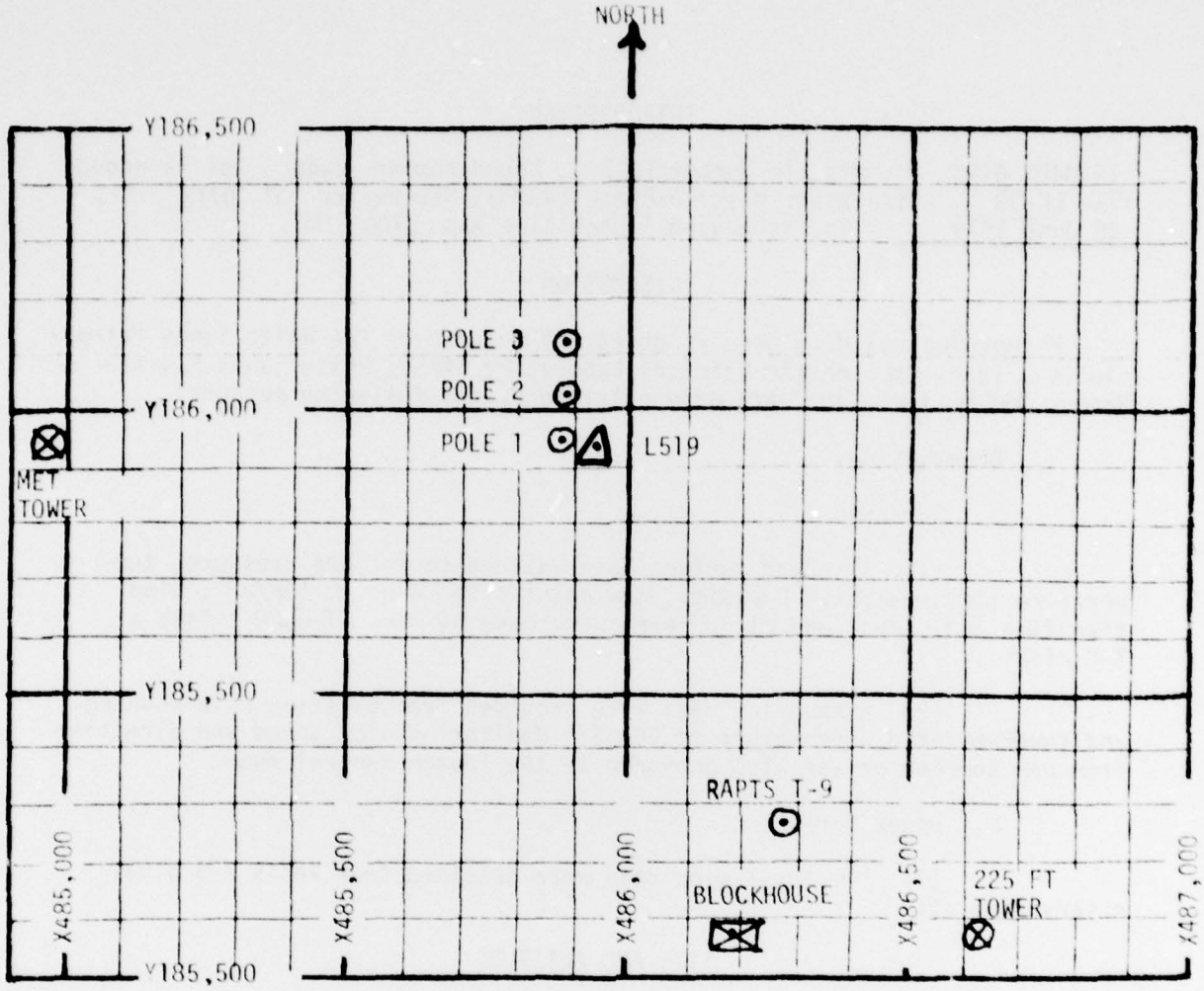
SITE AND ALTITUDE

LC-33 990 Meters

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 109,500 feet in 500-feet increments.

SITE AND TIME

SMR 0630 MST



1. MET TOWER - 4 Bendix Model T-120 Anemometers at 12 ft, 62 ft, 102 ft and 202 ft with E/A recorders.

2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.

   (a) Pole #1 - 38.7 ft

   (b) Pole #2 - 53.0 ft

   (c) Pole #3 - 83.6 ft

3. 225 FT WIND TOWER - 5 Bendix Model T-120 Anemometers at 35 ft, 88 ft, 128 ft, 168 ft and 200 ft with 5 X-Y visual indicators in Blockhouse.

4. RAPTS T-9 - Radar Automatic Pilot-Balloon Tracking System T-9 Radar

TABLE 1. Surface observations taken at LC-33
28 June 1979 at 0713 MDT, 19304DT GSRS,
Missile No. 1031, Round No. V-46

ELEVATION	3977.30	FT/MSL
PRESSURE	883.2	MBS
TEMPERATURE	20.1	°C
RELATIVE HUMIDITY	51	%
DEW POINT	9.6	°C
DENSITY	1042	GM/M^3
WIND SPEED	CALM	MPH
WIND DIRECTION		DEGREES
CLOUD COVER	CLEAR	

TABLE 2. LC-33 FIXED POLE ANEMOMETER-MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	000	00	-30	000	00	-30	137	04
-20	000	00	-20	000	00	-20	137	04
-10	000	00	-10	000	00	-10	138	04
0.0	000	00	0.0	000	00	0.0	138	04
+10	000	00	+10	000	00	+10	021	03

Type 19304DT GSRS , Missile No. 1031 , Round No. V-46 launched from LC-33 on 28 June 1979 at 0713 MDT

POLE #1 = X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL

POLE #2 = X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL

POLE #3 = X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL

NOTE: Wind directions are referenced to the firing azimuth or true north true north .

TABLE 3. LC-33 METEOROLOGICAL TOWER ANEMOMETER-MEASURED WINDS (202 FT. TOWER)

LEVEL #1 12 ft.			LEVEL #2 62 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	000	00	-30	145	04
-20	000	00	-20	145	04
-10	000	00	-10	145	03
0.0	000	00	0.0	145	03
+10	000	00	+10	145	03
LEVEL #3 102 ft.			LEVEL #4 202 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	147	03	-30	160	04
-20	147	03	-20	160	04
-10	147	03	-10	160	03
0.0	147	03	0.0	161	03
+10	148	03	+10	161	04

WTSM Coordinates: X484,982.64 Y185,957.73 H3983.00 (base)

Type 19304DT GSRS , Missile No. 1031 , Round No. V-46 launched from LC-33 on 28 June 1979 at 0713 MDT.

NOTE: Wind directions are referenced to the firing azimuth or true north true north .

TABLE 4. PILOT-BALLOON-MEASURED WIND DATA (30-METER INCREMENTS)

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
SFC	CALM	
30	121	01.0
60	121	01.5
90	121	02.0
120	121	03.0
150	121	04.0
180	121	05.0
210	121	05.0
240	124	05.0
270	130	04.0
300	139	04.0
330	150	03.0
360	164	03.0

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
390	181	03.0
420	198	03.0
450	207	03.0
480	213	02.0
510	221	02.0
540	232	02.0
570	246	02.0
600	262	02.0
630	277	02.0
660	291	02.0
690	301	02.0
720	302	03.0
750	313	03.0

Release Point Coordinates (WSTM): X486,037.24 Y486,037.24 H3977.30

Released from LC-33 on 28 June 1979 at 0713 MDT .

Type 19304DT GSRS , Missile No. 1031 , Round No. V-46 launched from LC-33 on 28 June 1979 at 0713 .

NOTE: Wind directions are referenced to the firing azimuth or true north true north.

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
780	317	04.0
810	319	04.0
840	320	05.0
870	318	05.0
900	317	05.0
930	316	05.0
960	315	06.0
990	314	06.0
1020		
1050		
1080		
1110		
1140		
1170		
1200		
1230		
1260		
1290		
1320		
1350		
1380		
1410		

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
1440		
1470		
1500		
1530		
1560		
1590		
1620		
1650		
1680		
1710		
1740		
1770		
1800		
1830		
1860		
1890		
1920		
1950		
1980		
2010		
2040		
2070		

STATION ALTITUDE 3997.30 FEET MSL
28 JUNE 79 0630 HRS MST
ASCENSION NO. 213

SIGNIFICANT LEVEL DATA
179060213
S M R

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
882.8	3997.3	23.0	7.9	38.0
850.0	5062.9	24.1	8.1	36.0
825.6	5884.4	23.7	6.9	34.0
817.0	6219.9	24.4	6.2	31.0
700.0	10588.3	14.5	.0	37.0
650.0	12213.3	11.2	-1.2	42.0
634.6	13284.7	8.2	-7.5	32.0
571.7	16079.9	.5	-6.8	59.0
543.6	17403.5	-2.6	-10.6	54.0
508.5	19129.1	-7.8	-13.8	62.0
500.0	19561.3	-6.6	-25.9	18.0
424.4	23694.5	-16.5	-37.6	14.0
400.0	25152.8	-18.8	-40.2	13.0
377.4	26572.3	-21.1	-41.4	14.0
321.0	30429.6	-30.9	-48.9	15.0
315.0	30870.4	-30.9		
309.2	31303.3	-32.3		
300.0	32002.6	-33.9		
250.0	36122.3	-43.9		
200.0	40950.1	-54.0		
180.4	43107.2	-59.0		
150.0	46809.0	-65.1		
117.4	51741.9	-69.5		
100.0	54892.0	-70.4		
80.0	59270.1	-70.0		
70.0	61947.0	-61.7		
62.6	64249.6	-58.5		
50.0	68912.0	-59.0		
45.6	70637.4	-55.4		
31.2	78874.5	-53.5		
30.0	79714.8	-50.5		
20.0	86572.9	-45.0		
13.2	97809.5	-43.0		
10.0	104084.0	-37.7		
7.8	109801.5	-34.8		

UPPER AIR DATA
17900602IS
S M R

STATION ALTITUDE 3997.30 FEET MSL
28 JUNE 79 0630 HRS MST
ASCENSION NO. 213

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TRU)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	882.8	23.0	7.9	38.0	1033.7	672.0	.0	.0	1.000277
4000.0	882.7	23.0	7.9	38.0	1033.6	672.0	176.5	.0	1.000277
4500.0	867.5	23.5	8.0	37.1	1015.9	672.6	176.5	1.5	1.000272
5000.0	852.5	24.0	8.1	36.2	998.5	673.2	176.5	2.9	1.000268
5500.0	837.7	23.9	7.5	35.0	977.9	673.0	176.5	4.4	1.000262
6000.0	823.3	23.9	6.7	33.0	961.0	673.0	176.5	5.8	1.000256
6500.0	808.9	23.8	5.8	31.4	945.0	672.7	212.3	3.7	1.000250
7000.0	794.8	22.6	5.1	32.1	932.1	671.4	209.3	4.5	1.000246
7500.0	780.8	21.5	4.5	32.8	919.4	670.1	273.0	5.8	1.000242
8000.0	767.1	20.4	3.8	33.4	906.9	668.8	280.6	6.8	1.000237
8500.0	753.7	19.2	3.1	34.1	894.6	667.4	290.6	7.4	1.000233
9000.0	740.5	18.1	2.3	34.8	882.4	666.1	310.7	7.9	1.000229
9500.0	727.5	17.0	1.6	35.5	870.4	664.7	323.4	8.5	1.000225
10000.0	714.7	15.8	.9	36.2	858.6	663.4	330.4	8.8	1.000221
10500.0	702.2	14.7	.1	36.9	847.0	662.1	348.6	9.3	1.000217
11000.0	689.8	13.7	-.3	38.3	834.9	660.9	350.6	10.2	1.000214
11500.0	677.5	12.6	-.6	39.6	822.8	659.7	3.0	11.2	1.000210
12000.0	665.1	11.6	-1.0	41.3	811.0	658.5	9.8	11.1	1.000207
12500.0	653.1	10.4	-2.8	39.3	800.1	657.9	17.0	11.1	1.000202
13000.0	641.3	9.0	-5.7	34.7	789.9	655.2	27.1	11.3	1.000195
13500.0	629.5	7.6	-7.2	34.1	779.4	653.5	30.2	11.7	1.000191
14000.0	617.9	6.2	-6.7	38.9	768.7	651.9	41.4	12.3	1.000189
14500.0	606.4	4.9	-6.4	43.7	758.1	650.3	48.4	13.0	1.000187
15000.0	595.2	3.5	-6.3	48.6	747.8	648.7	51.9	13.7	1.000185
15500.0	584.2	2.1	-6.4	53.4	737.6	647.1	56.3	14.8	1.000183
16000.0	573.4	.7	-6.5	58.2	727.6	645.5	59.0	16.4	1.000181
16500.0	562.6	-.5	-7.8	57.4	717.2	644.0	59.6	17.9	1.000177
17000.0	552.1	-1.7	-9.4	55.5	706.9	642.6	59.0	19.2	1.000173
17500.0	541.6	-2.9	-10.8	54.4	696.8	641.1	59.5	19.5	1.000169
18000.0	531.2	-4.4	-11.7	56.8	687.3	639.6	61.3	19.1	1.000166
18500.0	521.0	-5.9	-12.6	59.1	678.0	638.4	63.3	18.6	1.000163
19000.0	511.0	-7.4	-13.5	61.4	668.9	637.0	70.6	18.1	1.000161
19500.0	501.2	-6.8	-23.8	24.2	659.0	636.0	75.5	17.4	1.000151
20000.0	491.4	-7.7	-28.0	17.6	649.4	634.9	79.8	16.5	1.000147
20500.0	481.7	-8.8	-29.3	17.1	639.7	633.5	81.6	15.2	1.000144
21000.0	472.3	-10.0	-30.6	16.6	630.1	632.0	83.0	13.7	1.000142
21500.0	463.0	-11.2	-31.9	16.1	620.6	630.5	85.1	11.6	1.000139
22000.0	453.9	-12.4	-33.2	15.6	611.3	629.1	89.2	9.5	1.000137
22500.0	445.0	-13.5	-34.5	15.2	602.2	627.7	88.8	9.4	1.000135
23000.0	436.3	-14.8	-35.6	14.7	593.2	626.2	90.1	9.4	1.000133

UPPER AIR DATA
1790860213
S M R

STATION ALTITUDE 3997.30 FEET MSL
28 JUNE 79 0830 HRS MST
ASCENSION NO. 213

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	427.7	-16.0	-37.1	14.2	579.3	624.7	91.0	10.5	1.000130
24000.0	419.2	-17.0	-38.2	13.8	569.9	623.6	93.4	11.0	1.000128
24500.0	410.7	-17.8	-39.1	13.4	560.2	622.5	100.4	10.2	1.000126
25000.0	402.5	-18.6	-40.0	13.1	550.6	621.7	110.5	9.7	1.000124
25500.0	394.4	-19.4	-40.5	13.2	541.2	620.7	124.0	9.7	1.000122
26000.0	386.4	-20.2	-40.9	13.6	531.9	619.7	135.9	10.5	1.000119
26500.0	378.5	-21.0	-41.4	13.9	522.8	618.7	144.9	11.9	1.000117
27000.0	370.7	-22.2	-42.2	14.1	514.5	617.2	151.3	13.4	1.000115
27500.0	363.0	-23.5	-43.2	14.2	506.4	615.6	156.1	14.9	1.000114
28000.0	355.5	-24.7	-44.2	14.4	498.4	614.1	160.4	15.3	1.000112
28500.0	348.1	-26.0	-45.1	14.5	490.6	612.5	164.8	15.4	1.000110
29000.0	340.8	-27.3	-46.1	14.6	482.9	610.9	168.6	14.6	1.000108
29500.0	333.8	-28.5	-47.1	14.8	475.3	609.3	172.6	13.8	1.000106
30000.0	326.8	-29.8	-48.1	14.9	467.9	607.7	176.2	12.2	1.000105
30500.0	320.0	-30.9	-50.4	12.6**	460.2	606.4	187.2	10.5	1.000103
31000.0	313.3	-31.3			451.3	605.8	171.2	8.4	1.000101
31500.0	306.6	-32.8			444.3	604.0	179.1	6.4	1.000099
32000.0	300.0	-33.9			436.9	602.6	212.4	6.1	1.000097
32500.0	293.5	-35.1			429.5	601.1	239.2	7.8	1.000096
33000.0	287.0	-36.3			422.2	599.5	248.6	11.6	1.000094
33500.0	280.8	-37.5			415.1	598.0	253.3	15.6	1.000092
34000.0	274.6	-38.7			408.1	596.5	254.6	19.4	1.000091
34500.0	268.6	-40.0			401.3	594.9	255.5	22.8	1.000089
35000.0	262.7	-41.2			394.6	593.4	255.1	22.8	1.000088
35500.0	257.0	-42.4			387.9	591.8	255.0	22.7	1.000086
36000.0	251.4	-43.6			381.5	590.2	255.3	21.6	1.000085
36500.0	245.7	-44.7			374.8	588.6	255.7	20.4	1.000083
37000.0	240.1	-45.7			367.7	587.5	257.6	19.4	1.000082
37500.0	234.6	-46.8			361.0	586.1	259.6	18.5	1.000080
38000.0	229.2	-47.8			354.4	584.6	260.9	18.8	1.000079
38500.0	224.0	-48.9			347.9	583.4	261.9	19.0	1.000077
39000.0	218.9	-49.9			341.6	582.1	262.0	18.9	1.000076
39500.0	213.9	-51.0			335.3	580.7	262.5	18.2	1.000075
40000.0	209.0	-52.0			329.2	579.3	264.0	16.4	1.000073
40500.0	204.2	-53.1			323.2	578.0	265.1	14.7	1.000072
41000.0	199.5	-54.1			317.3	576.6	265.9	13.6	1.000071
41500.0	194.8	-55.3			311.5	575.0	262.4	12.6	1.000069
42000.0	190.2	-56.4			305.8	573.5	259.4	13.3	1.000068
42500.0	185.7	-57.6			300.1	572.0	247.2	14.2	1.000067
43000.0	181.3	-58.8			294.6	570.4	247.0	16.6	1.000066

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 5997.30 FEET MSL
28 JUNE 79 0630 HRS MST
ASCENSION NO. 219

UPPER AIR DATA
1790606219
S M R

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	177.0	-59.6			288.7	569.3	247.5	19.3	1.000064
44000.0	172.7	-60.4			282.6	566.2	255.6	20.2	1.000063
44500.0	168.5	-61.3			277.0	563.1	264.1	21.3	1.000062
45000.0	164.4	-62.1			271.3	560.0	271.5	19.8	1.000060
45500.0	160.4	-62.9			265.6	556.9	279.9	18.7	1.000059
46000.0	156.5	-63.7			260.3	553.8	288.6	15.2	1.000058
46500.0	152.7	-64.5			255.0	552.7	295.3	10.9	1.000057
47000.0	149.0	-65.2			249.7	551.6	302.3	7.5	1.000056
47500.0	145.3	-65.7			244.0	551.2	299.1	4.4	1.000054
48000.0	141.7	-66.1			238.4	550.3	289.4	2.7	1.000053
48500.0	138.2	-66.6			233.0	549.9	282.0	4.4	1.000052
49000.0	134.8	-67.0			227.7	549.3	270.5	6.5	1.000051
49500.0	131.4	-67.5			222.6	548.7	271.1	7.9	1.000050
50000.0	128.1	-67.9			217.5	548.1	280.3	9.3	1.000048
50500.0	125.0	-68.4			212.6	547.5	283.4	9.9	1.000047
51000.0	121.9	-68.8			207.6	546.9	280.9	10.6	1.000046
51500.0	118.8	-69.3			203.1	546.3	197.5	8.7	1.000045
52000.0	115.9	-69.6			198.3	545.9	191.9	8.7	1.000044
52500.0	113.0	-69.7			193.4	545.7	189.7	5.3	1.000043
53000.0	110.1	-69.9			188.7	545.5	191.2	4.3	1.000042
53500.0	107.3	-70.0			184.1	545.3	206.8	3.9	1.000041
54000.0	104.6	-70.1			179.6	545.1	210.7	5.0	1.000040
54500.0	102.0	-70.3			175.2	544.9	240.1	5.5	1.000039
55000.0	99.5	-70.4			170.9	544.7	299.3	3.9	1.000038
55500.0	96.9	-70.3			166.5	544.6	339.7	5.5	1.000037
56000.0	94.5	-70.3			162.3	544.9	20.6	6.6	1.000036
56500.0	92.1	-70.3			158.2	544.9	41.7	10.1	1.000035
57000.0	89.8	-70.2			154.2	545.0	59.0	11.6	1.000034
57500.0	87.6	-70.2			150.3	545.0	73.9	13.7	1.000033
58000.0	85.4	-70.1			146.4	545.1	80.6	13.1	1.000033
58500.0	83.2	-70.1			142.7	545.2	88.1	9.3	1.000032
59000.0	81.1	-70.0			139.1	545.2	83.6	5.8	1.000031
59500.0	79.1	-69.3			136.1	545.2	61.5	3.8	1.000030
60000.0	77.1	-67.7			133.8	545.4	4.3	4.0	1.000029
60500.0	75.2	-65.2			132.5	546.1	33.5	6.6	1.000028
61000.0	73.4	-64.6			132.5	546.9	49.7	10.3	1.000027
61500.0	71.5	-63.1			131.7	547.5	50.5	10.0	1.000026
62000.0	69.8	-61.6			131.0	548.2	50.6	7.9	1.000026
62500.0	68.1	-60.9			131.9	547.8	54.4	5.5	1.000025
63000.0	66.5	-60.2			130.8	548.2	55.8	5.2	1.000024

UPPER AIR DATA
1790060213
S M R

STATION ALTITUDE 3697.30 FEET MSL
28 JUNE 79 0630 HRS MST
ASCENSION NO. 213

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
03500.0	64.9	-59.5			105.9	569.4	69.5	6.0	1.000024
04000.0	63.4	-58.8			103.0	570.3	67.1	8.8	1.000023
04500.0	61.8	-58.5			100.4	570.7	65.6	11.9	1.000022
05000.0	60.4	-58.6			98.0	570.7	66.5	13.2	1.000022
05500.0	58.9	-58.6			95.7	570.6	70.8	11.7	1.000021
06000.0	57.5	-58.7			93.5	570.5	70.3	10.4	1.000021
06500.0	56.2	-58.7			91.3	570.4	74.3	11.2	1.000020
07000.0	54.8	-58.8			89.1	570.4	71.7	12.2	1.000020
07500.0	53.5	-58.8			87.0	570.3	72.4	13.3	1.000019
08000.0	52.2	-58.9			85.0	570.2	77.7	14.5	1.000019
08500.0	51.0	-59.0			83.0	570.2	82.2	15.8	1.000018
09000.0	49.8	-58.8			80.9	570.3	91.8	16.0	1.000018
09500.0	48.5	-57.9			78.7	571.6	102.4	16.4	1.000018
10000.0	47.3	-57.0			76.5	572.8	106.8	17.4	1.000017
10500.0	46.3	-56.0			74.4	574.0	97.8	19.1	1.000017
11000.0	45.3	-55.4			72.4	574.9	90.4	21.1	1.000016
11500.0	44.2	-55.2			70.7	575.1	87.6	21.9	1.000016
12000.0	43.2	-55.1			69.0	575.2	88.0	22.0	1.000015
12500.0	42.2	-55.0			67.3	575.4	88.8	22.1	1.000015
13000.0	41.2	-54.9			65.7	575.6	85.2	21.1	1.000015
13500.0	40.2	-54.8			64.1	575.7	85.6	20.1	1.000014
14000.0	39.3	-54.7			62.5	575.9	86.1	19.1	1.000014
14500.0	38.4	-54.5			61.1	576.0	86.7	18.1	1.000014
15000.0	37.5	-54.4			59.7	576.2	87.3	17.0	1.000013
15500.0	36.6	-54.3			58.2	576.3	87.5	17.2	1.000013
16000.0	35.7	-54.2			56.9	576.5	87.7	18.2	1.000013
16500.0	34.9	-54.1			55.5	576.6	87.8	19.2	1.000012
17000.0	34.1	-53.9			54.2	576.8	88.2	20.8	1.000012
17500.0	33.3	-53.8			52.9	577.0	88.8	22.7	1.000012
18000.0	32.5	-53.7			51.6	577.1	89.0	24.6	1.000011
18500.0	31.8	-53.6			50.4	577.3	91.9	23.9	1.000011
19000.0	31.0	-53.1			49.1	577.8	99.4	23.0	1.000011
19500.0	30.3	-51.3			47.8	578.8	99.2	22.1	1.000011
20000.0	29.5	-50.3			46.8	581.5	93.8	22.5	1.000010
20500.0	28.9	-50.0			45.6	581.9	94.9	23.0	1.000010
21000.0	28.3	-49.7			44.1	582.3	100.2	23.4	1.000010
21500.0	27.5	-49.4			43.0	582.6	97.5	22.8	1.000010
22000.0	27.0	-49.1			42.0	583.2	96.7	22.2	1.000009
22500.0	26.4	-48.8			41.0	583.8	97.8	21.6	1.000009
23000.0	25.8	-48.5			40.0	584.0	96.5	21.2	1.000009

UPPER AIR DATA
1790060213
S M R

STATION ALTITUDE 5997.30 FEET MSL
28 JUNE 79 0630 HRS MST
ASCENSION NO. 213

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
03500.0	25.2	-48.1			39.1	584.4	93.1	20.9	1.000009
04000.0	24.7	-47.8			38.1	584.8	93.6	20.6	1.000008
04500.0	24.1	-47.5			37.2	585.2	92.1	20.9	1.000008
05000.0	23.6	-47.2			36.3	585.6	90.5	21.3	1.000008
05500.0	23.0	-46.9			35.4	586.0	89.1	21.8	1.000008
06000.0	22.5	-46.6			34.5	586.4	88.6	23.1	1.000008
06500.0	22.0	-46.3			33.8	586.8	88.6	25.3	1.000008
07000.0	21.5	-46.0			33.0	587.2	88.0	27.5	1.000007
07500.0	21.0	-45.7			32.2	587.6	79.1	29.8	1.000007
08000.0	20.5	-45.4			31.4	588.0	70.9	31.5	1.000007
08500.0	20.1	-45.0			30.6	588.4	73.6	33.3	1.000007
09000.0	19.6	-44.9			29.9	588.8	75.4	35.0	1.000007
09500.0	19.2	-44.8			29.3	589.2	75.4	35.6	1.000007
10000.0	18.8	-44.7			28.6	589.6	75.4	35.7	1.000006
10500.0	18.3	-44.6			28.0	589.9	75.5	35.8	1.000006
11000.0	17.9	-44.5			27.3	589.1	75.4	35.9	1.000006
11500.0	17.5	-44.4			26.7	589.5	75.5	36.3	1.000006
12000.0	17.1	-44.3			26.1	589.4	76.1	36.6	1.000006
12500.0	16.8	-44.1			25.5	589.5	76.0	37.0	1.000006
13000.0	16.4	-44.0			24.9	589.7	76.4	37.3	1.000006
13500.0	16.0	-43.9			24.4	589.8	77.1	37.6	1.000005
14000.0	15.7	-43.8			23.8	590.0	77.7	37.9	1.000005
14500.0	15.3	-43.7			23.3	590.1	80.3	38.3	1.000005
15000.0	15.0	-43.6			22.7	590.2	80.6	38.9	1.000005
15500.0	14.6	-43.5			22.2	590.4	80.9	39.6	1.000005
16000.0	14.3	-43.4			21.7	590.5	81.2	40.2	1.000005
16500.0	14.0	-43.3			21.2	590.7	80.7	39.9	1.000005
17000.0	13.7	-43.2			20.7	590.8	80.0	39.4	1.000005
17500.0	13.4	-43.1			20.3	590.9	79.2	38.9	1.000005
18000.0	13.1	-42.8			19.8	591.2	78.6	38.6	1.000004
18500.0	12.8	-42.4			19.3	591.3	78.0	38.9	1.000004
19000.0	12.5	-42.0			18.9	592.3	78.0	39.2	1.000004
19500.0	12.2	-41.6			18.4	592.8	77.6	39.6	1.000004
20000.0	12.0	-41.1			18.0	593.4	78.0	39.8	1.000004
20500.0	11.7	-40.7			17.6	593.9	78.0	40.0	1.000004
21000.0	11.5	-40.3			17.1	594.5	80.0	40.3	1.000004
21500.0	11.2	-39.9			16.7	595.0	82.3	40.4	1.000004
22000.0	11.0	-39.5			16.3	595.5	83.0	40.2	1.000004
22500.0	10.7	-39.0			16.0	595.1	87.0	40.2	1.000004
23000.0	10.5	-38.6			15.6	595.6	90.2	40.1	1.000003

STATION ALTITUDE 3997.30 FEET MSL
28 JUNE 79 0630 HRS MST
ASCENSION NO. 215

UPPER AIR DATA
1790606215
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(T.N.)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
103500.0	10.3	-36.2			15.2	597.2	91.7	40.0	1.000003
104000.0	10.0	-37.8			14.9	597.7	92.9	39.8	1.000003
104500.0	9.8	-37.5			14.5	598.1	94.1	39.6	1.000003
105000.0	9.6	-37.2			14.2	598.4	95.3	39.5	1.000003
105500.0	9.4	-37.0			13.9	598.7	96.5	39.4	1.000003
106000.0	9.2	-36.7			13.6	599.0			1.000003
106500.0	9.0	-36.5			13.3	599.3			1.000003
107000.0	8.8	-36.2			13.0	599.7			1.000003
107500.0	8.6	-36.0			12.7	600.0			1.000003
108000.0	8.4	-35.7			12.4	600.3			1.000003
108500.0	8.3	-35.5			12.1	600.6			1.000003
109000.0	8.1	-35.2			11.8	600.9			1.000003
109500.0	7.9	-35.0			11.6	601.3			1.000003

MRN SIGNIFICANT LEVEL DATA
1790602l3
S M R

STATION ALTITUDE 3997.30 FEET MSL
28 JUNE 79 0630 HRS MST
ASCENSION NO. 213

GEODETIC COORDINATES
32.40834 LAT DEG
106.42307 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	WIND DATA DIRECTION DEG (TN)	SPEED MPS	N-S MPS	E-W MPS	DEW PT DEP DEG C	TEMPERATURE AIR DEG C	PRESSURE MILLIBARS
3326.	9999.**	9999.**	-9999.**	-9999.**	99	-34.8	7.800+0
3155.	93.	20.	1.	-20.	99	-37.7	1.000+1
2966.	79.	20.	-4.	-19.	99	-43.0	1.320+1
2887.	79.	17.	-3.	-17.	99	-45.0	2.000+1
2819.	99.	11.	2.	-11.	99	-50.5	3.000+1
2794.	94.	12.	1.	-12.	99	-53.5	3.120+1
2151.	93.	11.	0.	-11.	99	-55.4	4.560+1
2092.	90.	8.	-0.	-8.	99	-59.0	5.000+1
1951.	66.	5.	-2.	-5.	99	-58.5	6.260+1
1882.	58.	4.	-2.	-4.	99	-61.7	7.000+1
1801.	69.	2.	-1.	-2.	99	-70.0	8.000+1
1756.	282.	2.	-0.	2.	99	-70.4	1.000+2

** WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3997.30 FEET MSL
28 JUNE 79 0630 HRS MST
ASCENSION NO. 213

MANDATORY LEVELS
17900[illegible]213
S Y R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	5079.	24.1	8.1	38.	170.5	5.2
800.0	6817.	23.1	5.4	32.	255.4	3.8
750.0	8649.	18.9	2.9	34.	301.2	7.7
700.0	10578.	14.5	.0	37.	350.7	9.5
650.0	12618.	10.0	-3.6	38.	19.5	11.1
600.0	14778.	4.1	-6.4	47.	49.5	13.4
550.0	17075.	-1.9	-9.7	55.	58.8	19.4
500.0	19533.	-6.6	-26.9	16.	75.8	17.3
450.0	22201.	-13.0	-33.8	15.	84.3	9.5
400.0	25110.	-18.8	-40.2	10.	114.3	9.6
350.0	28335.	-25.7	-44.9	14.	163.7	15.4
300.0	31978.	-33.9			211.5	6.1
250.0	36042.	-43.9			250.3	21.3
200.0	40850.	-54.0			264.1	13.8
175.0	43621.	-60.0			250.7	19.8
150.0	46741.	-65.1			302.8	8.4
125.0	50357.	-68.4			203.5	9.9
100.0	54721.	-70.4			270.9	4.0
80.0	59073.	-70.0			71.2	4.7
70.0	61733.	-61.7			57.8	8.2
60.0	64896.	-58.6			67.3	12.9
50.0	68651.	-59.0			89.2	15.9
40.0	73309.	-54.7			85.7	20.0
30.0	79372.	-50.5			99.3	22.2
25.0	83205.	-48.0			94.7	20.8
20.0	88153.	-45.0			78.5	33.4
15.0	94481.	-43.6			80.5	38.6
10.0	103516.	-37.7			92.0	39.8

MRN MANDATORY LEVELS
1790060210
S M R

STATION ALTITUDE 3997.30 FEET MSL
29 JUNE 79 0630 HRS MST
ASCENSION NO. 245

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	WIND DATA DIRECTION DEG (TN)	SPEED MPS	N-S MPS	E-W MPS	TEMPERATURE DEW PT DEP DEG C	AIR DEG C	PRESSURE MILLIBARS
3158.	93.	20.	1.	-20.	99	-37.7	1.000+1
2980.	81.	20.	-3.	-20.	99	-43.6	1.500+1
2687.	79.	17.	-3.	-17.	99	-45.0	2.000+1
2539.	95.	11.	1.	-11.	99	-48.0	2.500+1
2419.	99.	11.	2.	-11.	99	-50.5	3.000+1
2334.	86.	10.	-1.	-10.	99	-54.7	4.000+1
2092.	89.	8.	-0.	-8.	99	-59.0	5.000+1
1978.	87.	7.	-3.	-6.	99	-58.6	6.000+1
1882.	58.	4.	-2.	-4.	99	-61.7	7.000+1
1801.	71.	2.	-1.	-2.	99	-70.0	8.000+1
1768.	279.	2.	-0.	2.	99	-70.4	1.000+2
1535.	203.	5.	5.	2.	99	-68.4	1.250+2
1425.	303.	4.	-2.	4.	99	-65.1	1.500+2
1330.	251.	10.	3.	10.	99	-60.0	1.750+2
1245.	264.	7.	1.	7.	99	-54.0	2.000+2
1099.	255.	11.	3.	11.	99	-43.9	2.500+2
973.	212.	3.	3.	2.	99	-33.9	3.000+2
864.	164.	8.	8.	-2.	19	-25.7	3.500+2
765.	114.	5.	2.	-5.	21	-18.8	4.000+2
677.	85.	5.	-0.	-5.	21	-13.0	4.500+2
595.	76.	9.	-2.	-9.	20	-6.6	5.000+2
520.	59.	10.	-5.	-9.	18	-1.9	5.500+2
450.	50.	7.	-4.	-5.	10	4.1	6.000+2
385.	20.	6.	-5.	-2.	14	10.0	6.500+2
322.	351.	5.	-5.	1.	14	14.5	7.000+2
264.	301.	4.	-2.	3.	16	18.9	7.500+2
208.	255.	2.	0.	2.	18	23.1	8.000+2
155.	177.	2.	2.	-0.	18	24.1	8.500+2